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CLAIMS

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[Claim]

[Claim 1] The manufacture technique of the light color swimming suit characterized by what intersection editing of the multifilament and elastic yarn of the \*\*\*\* type bicomponent fiber which made the core part contain a white pigment is carried out with the machine edited by \*\*, and the content of the aforementioned multifilament is adjusted to 50% of the weight or more of knitting fabric, the obtained knitting fabric is dyed light color, and is done for sewing of the swimming suit.

[Claim 2] They are the eyes of knitting fabric 150-350g/m<sup>2</sup> The manufacture technique of a light color swimming suit given in the claim 1 characterized by the orientation of circumstances adjusting the rate of extension of knitting fabric to 70 - 300% of a domain at a domain.

[Claim 3] The manufacture technique of a light color swimming suit given in the claims 1 or 2 characterized by for the number of configuration filaments of a multifilament being five to 100 filament, and single fiber fineness being 0.5-10 deniers.

[Claim 4] The manufacture technique of a light color swimming suit given in the claims 1, 2, or 3 characterized by a \*\*\*\* type bicomponent fiber containing at least one sort or two sorts or more of white pigments chosen out of the group which consists of titanium oxide, a zinc white, an aluminum oxide, a zirconium oxide, a calcium oxide, and a magnesium oxide in a core part three to 30% of the weight to the polymer which forms a \*\*\*\* type bicomponent fiber.

[Claim 5] Lb of knitting fabric The manufacture technique of a light color swimming suit given in the claims 1, 2, 3, or 4 characterized by adjusting a value to 0.6 - 8% of a domain.

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DETAILED DESCRIPTION

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[Detailed description]

[0001]

[The technical field to which invention belongs] this invention relates to the manufacture technique of a light color swimming suit of excelling in \*\*\*\*\*.

[0002]

[Prior art] It composes of the synthetic fiber which consists only of a polymer since the polymer substrate used for a synthetic fiber is originally transparence, and the swimming suit which consists of knitting fabric dyed the light color system has the fault that the thing under it is transparent and it is visible. For this reason, in the swimming suit of a light color system, in order to compensate this fault, the swimming suit was made into the whole surface duplex cut by the sewing specification, or the ground dyed a certain specific site by flesh color and the same color was used for lining cloth, and partial duplex cut sewing was carried out. In addition, although make the eyes of the ground heavy, thickness is increased or how to make elasticity small is also considered, there is a limitation as ground for swimming suits. When it wore as a swimming suit as the aforementioned cure including a sewing specification, there was a too thick problem that wear nature and aesthetics fell -- that it is too heavy and the ease of moving of the body is barred by the shortage of a stretch -- and a cost became high.

[0003] The technique of arranging the yarn dyed the background of the white system ground by the gray color is proposed by the publication-number 45791 [ three to ] official report as technique of planning \*\*\*\*\* by enhancement of a ground configuration, further again. Although this technique is effective in \*\*\*\*\* , a background tends to be [ the ground table of a white system ] somber for a gray color, and a problem is in aesthetics. Moreover, since at least two kinds of yarn is required, the complicatedness in a ground manufacture phase and a cost rise are not avoided.

[0004] Although the shading field which comes to contain in a publication-number 213536 [ three to ] official report the synthetic fiber in which the spectral reflectance of an electromagnetic wave with a wavelength of 0.4-2 micrometers contains 50% or more of a ceramics five to 35% of the weight is indicated, by reflecting the heat energy of a solar beam of light, this does not do a heat screening effect so and does not do the enhancement effect of \*\*\*\*\* so.

[0005] The actual condition is that the swimming suit dyed the light color system is excellent in \*\*\*\*\* , and the wear nature as a swimming suit and the thing which also satisfies aesthetics further are not obtained because of the trouble described above.

[0006]

[Object of the Invention] The technical problem of this invention cancels the fault of the swimming suit which consists of the above conventional techniques, is dyed the amorous glance of thin inclinations, such as a white system, flesh color, yellow, pink, and cream, even if a sewing specification is a single cut, it is excellent in \*\*\*\*\* , and it is to offer the manufacture technique of a light color swimming suit that the light color swimming suit with which it is moreover satisfied of wear nature and aesthetics can be manufactured by the low cost.

[0007]

[The means for solving a technical problem] In order that this invention may solve the aforementioned technical problem, it carries out intersection editing of the multifilament and elastic yarn of the \*\*\*\* type bicomponent fiber which made the core part contain a white pigment with the machine edited by \*\*, adjusts the content of the aforementioned multifilament to 50% of the weight or more of knitting fabric, dyes light color the obtained knitting fabric, and offers the manufacture technique of the light color swimming suit characterized by carrying out sewing of the swimming suit. It sets to the manufacture technique of the aforementioned light color swimming suit, and they are the eyes of knitting fabric 150-350g/m<sup>2</sup> A swimming suit comfortable to wear is easy to be obtained that it is hard to be transparent in a domain when the orientation of circumstances adjusts the rate of extension of knitting fabric to 70 - 300% of a domain. Moreover, the number of configuration filaments of the multifilament of a \*\*\*\* type bicomponent fiber is five to 100 filament, and the domain of 0.5-10 deniers is suitable for single fiber fineness.

[0008] If the aforementioned \*\*\*\* type bicomponent fiber contains at least one sort or two sorts or more of white pigments chosen out of the group which consists of titanium oxide, a zinc white, an aluminum oxide, a zirconium oxide, a calcium oxide, and a magnesium oxide in a core part three to 30% of the weight to the polymer which forms a \*\*\*\* type bicomponent fiber, it will become easy to obtain outstanding \*\*\*\*\* and outstanding coloring nature. Furthermore, Lb of knitting fabric By adjusting a value to 0.6 - 8% of a domain, high \*\*\*\*\* is expectable. In this invention, light color means the amorous glance of thin inclinations, such as a white system or flesh color, yellow, pink, and cream.

[0009] In this invention, many properties of a light color swimming suit were measured by the following technique.

\*\* Rate JIS of extension L It measured by the grab method of the constant-rate-of-extension method of 1018. The swimming suit

extracted three sheets at a time to orientation and the latitudinal direction through the 10cmx15cm test piece, respectively. Using the constant-rate-of-extension type tension tester with a \*\*\*\* recording device, the side front attached 2.54cmx2.54cm, the background attached the 2.54cmx5.08cm thing, and the vertical grip set the grip spacing to 7.6cm, and was fixed to the grip except for sag and tension of a test piece. It extended by part for 10cm/in hauling speed till 1.8kg load, grip spacing D at that time was measured, and it asked for the rate (%) of extension using the following formula, and expressed with the average of three sheets.

Rate [ of extension ] (%) =  $\{(D1-D)/D\} \times 100$ , however D are a grip spacing (mm) and D1. The grip spacing when extending till 1.8kg load is expressed.

[0010] \*\* Lb It measured using the colorimeter SM-3 type made from Value \*\*\*\* Testing machine. First, the blackness in the measurement sample installation section was checked. That is, the felt cloth dyed the test section black was attached, and it checked that L value (lightness) of a felt cloth was 14\*\*0.5%. Next, the whiteness in the measurement sample installation section was checked. That is, the standard white board was attached in the test section, and it checked that L value (lightness) of a standard white board was 91\*\*0.5%. It is usually law and these verification procedures are the technique of being generalized for which L value (lightness) of the ground is measured. L value of the high ground of white degree becomes near 91%, and L value of the conversely black ground becomes 14% closely. Next, the test piece was measured as follows. First, black felt cloth and one test piece were attached in the test section, L value was measured, measured value was set to LB, the same test piece as a standard white board was attached in the test section, L value was measured, measured value was set to LW, and the difference (LW-LB) of LW and LB was searched for. Lb which measures 5 times with the one same test piece repeatedly, calculates 5 times of the averages, and shows the grade of \*\*\*\*\* It considered as the value.

[0011]

[Gestalt of implementation of invention] The manufacture technique of the light color swimming suit of this invention is explained in detail. According to the synergistic effect of the \*\*\*\* type bicomponent fiber and knitting fabric structure which constitute a swimming suit, in spite of dyeing [ the ground eyes optimum as a swimming suit, thickness, stretchable, and ] this invention the light color system, holding aesthetics further, it can offer the light color swimming suit which has outstanding \*\*\*\*\*.

[0012] In the manufacture technique of the light color swimming suit of this invention, sewing of the swimming suit is carried out using the knitting fabric which carried out intersection editing of the multifilament and elastic yarn of a \*\*\*\* type bicomponent fiber. The core part of a \*\*\*\* type bicomponent fiber is made to contain a white pigment, the opacification of the polymer substrate can be carried out and \*\*\*\*\* can be further raised by using as gestalt of a multifilament. It is desirable to adjust the content of the aforementioned multifilament to 95 or less % of the weight of knitting fabric 50% of the weight or more. \*\*\*\*\* tends to improve so that the content of a multifilament is high. On the other hand, if 95 % of the weight is exceeded, the blended ratio of elastic yarn falls, and it will be inferior to stretchable and will be hard coming to move.

[0013] Especially the elastic yarn that carries out the volume on intersection to the aforementioned \*\*\*\* type bicomponent fiber is not limited. For example, if polyurethane elastic yarn is used, the swimming suit which has the outstanding rate of extension can be obtained. Moreover, other materials are mixable if needed besides elastic yarn.

[0014] Intersection editing of an aforementioned multifilament and aforementioned elastic yarn is carried out using the machine edited by \*\*. As knitting fabric, it passes, and tricot, a snowplow, etc. which are knitting fabric are thin, and it excels in dimensional stability, and is suitable for the swimming suit. Tricot is desirable especially and it is desirable to use multilayer-structure knitting fabric, such as satin organization and half organization of the two sheet reed usage of tricot, and three sheet reed usage's insertion organization, especially.

[0015] The aforementioned knitting fabric is eyes 150-350g/m2 Adjusting to a domain is desirable. Eyes are 150g/m2. When it is the following, it tends to become the swimming suit deficient in the \*\*\*\*\* effect. On the other hand, it is 350g/m2. It is in the inclination that the wear nature of increasing the fatigue of the body since it senses heavy when it becomes heavy too much as knitting fabric for swimming suits and it wears, although the \*\*\*\*\* effect became good when exceeded, or a motion is barred, and producing displeasure on the contrary, etc. and a swimming suit falls.

[0016] As for the rate of extension of knitting fabric, it is desirable to adjust the orientation of circumstances to 70 - 300%. When the rate of extension is less than 70%, in the swimming suit worn where the body is fitted, a motion of the body is barred and wear nature tends to fall. The wear nature of a swimming suit tends to improve so that the rate of extension is high. However, when the rate of extension exceeds 300%, in the status that it got wet in water, a swimming suit is extended too much, and the body is not fitted, but there is an inclination it is on the contrary hard coming to move.

[0017] The number of configuration filaments of the aforementioned multifilament has about 5-100 desirable filaments, and single fiber fineness has desirable about 0.5-10 deniers. Although a round-head cross section is sufficient as the appearance of the cross-section configuration of a \*\*\*\* type bicomponent fiber, it is harder coming to be transparent by making it deformation cross sections, such as the trigonum, and is desirable. Moreover, a round-head cross section is sufficient as the cross-section configuration of a core part, and it is still desirable. [ of a triangle, a star type configuration, etc. ]

[0018] Also in the aforementioned \*\*\*\* type bicomponent fiber, a core part contains a white pigment, and the knitting fabric using the \*\*\*\* type bicomponent fiber only by the substrate polymer is suitable for \*\*\*\* in the light color swimming suit. It is desirable for sufficient opacity to be acquired, and for coloring nature not to fall, even if it dyes it the amorous glance of thin inclinations, such as not only a white system but flesh color, yellow, pink, cream, etc., and not to do failure to a raw thread manufacture further as a white pigment. For example, titanium oxide, a zinc white, an aluminum oxide, a zirconium oxide, a calcium oxide, a magnesium oxide, etc. are used preferably, the raw thread manufacture is easy also among these, and low titanium oxide of a cost is desirable. Moreover, you may mix and use these.

[0019] Its 3 - 30 % of the weight is desirable to the polymer which forms a \*\*\*\* type bicomponent fiber, and the content of the white pigment in a core part has 5 - 25% of the weight of desirable loadings, when using titanium oxide especially. If the content of a white pigment is made into the aforementioned domain, there will be an inclination to be easy to obtain the \*\*\*\*\* of a swimming suit, and it will be easy to prevent aggravation of coloring nature and the silk manufacture nature in a raw thread manufacture.

[0020] The substrate of the polymer of a \*\*\*\* type bicomponent fiber will not be limited if a polyamide system, a polyester system, a polypropylene system, etc. are fiber-forming possible polymers. As for the aforementioned \*\*\*\* type bicomponent fiber, carrying out a compound spinning etc. can obtain the polymer and substrate polymer which mixed the white pigment by the spinning nozzle to a spinning undiluted solution using a usual raw thread manufacturing technology.

[0021] Furthermore, it sets to the manufacture technique of the light color swimming suit of this invention, and is Lb. It is desirable to carry out sewing of the swimming suit using the knitting fabric which adjusted the value to 0.6 - 8% of the domain. It is Lb from a viewpoint which fully gives the \*\*\*\*\* effect. It is so suitable that a value is low, and it is still desirable when it adjusts to 2.5% or less. However, Lb Since knitting fabric becomes thick and becomes the shortage of a stretch when a value uses the knitting fabric dyed the white system at less than 0.6%, the wear nature as a swimming suit tends to fall. On the other hand, it is Lb. If the knitting fabric to which a value exceeds 8% is used, a lower thing may be transparent and it may be visible.

[0022] Sewing of the light color swimming suit is carried out using the knitting fabric which dyes the aforementioned knitting fabric light color and was obtained. Especially if the dyeing technique of knitting fabric is the technique that it is suitable for the polymer substrate used for the aforementioned multifilament, it will not be limited, but a usual nylon staining technique, a usual polyester staining technique, etc. can be used for it.

[0023]

[Example] An example is used for below and the manufacture technique of the light color swimming suit of this invention is explained to it still in detail. In the example and the example of a comparison, the feeling of wear of the swimming suit according to \*\*\*\*\* and the ease of moving to ten female estimated coloring nature by the visual sense. A criterion is as follows.

<\*\*\*\*\*> O; -- O; which is not completely transparent -- the <ease of moving> x; transparent which is hardly transparent <Coloring nature> which O; Is easy to move and which x; Is hard to move O; coloring nature fitness, \*\*; coloring nature, \*\*\*\*\* and x; coloring nature \*\*\*\*\* [0024] The half organization which arranged nylon yarn on the front reed which indicates titanium oxide to be the \*\*\*\* type nylon multifilament of 50 deniers and 17 filaments contained in a core part 5% of the weight (pair polymer ratio) to drawing 1 in a two sheet reed with the single tricot machine of 28 gages as an example 1 white pigment using 40 deniers (Toray Industries and E. I. du Pont de Nemours & Co. make) of polyurethane elastic yarn, and arranged polyurethane elastic yarn on the back reed was composed. The blended ratio of each line of thread was used as 80 % of the weight of nylon, and 20 % of the weight of polyurethane elastic yarn. Based on a usual nylon staining technique, it dyes white after an organization, and is 201g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 131%, 91% of \*\*s, and Lb. The value was 4.6%. The obtained knitting fabric was used for the frontal land, and sewing of the swimming suit was carried out. Since the feeling of wear and coloring nature were evaluated, the result is shown in Table 1. The feeling of wear of \*\*\*\*\* , the ease of moving, etc. was satisfied, and coloring nature was also a good white swimming suit. Moreover, it is Lb as a result of dyeing the same knitting fabric beige. The value was set to 0.6 and \*\*\*\*\* improved much more.

[0025] It dyes by composing of the same yarn usage as example 2 example 1, and is 156g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 133%, 96% of \*\*s, and Lb. The value was 5.0%. Using the obtained knitting fabric, sewing of the swimming suit was carried out like the example 1, and evaluation of the feeling of wear and coloring nature was performed. An evaluation result is shown in Table 1. \*\*\*\*\* and the ease of moving were satisfied and it was the good white swimming suit of coloring nature.

[0026] Knitting fabric was composed like the example 1 as an example 3 white pigment using 40 deniers of the same polyurethane elastic yarn as the \*\*\*\* type polyester multifilament (Toray Industries, Inc. make) of 50 deniers and 17 filaments which contains titanium oxide in a core part 5% of the weight (pair polymer ratio), and the thing used in the example 1. The blended ratio of each line of thread was used as 80 % of the weight of polyester, and 20 % of the weight of polyurethane elastic yarn. Based on a usual polyester staining technique, it dyes white after an organization, and is 203g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 125%, 88% of \*\*s, and Lb. The value was 4.5%. Since sewing of the white swimming suit was carried out like the example 1 and evaluation of the feeling of wear and coloring nature was performed using the obtained knitting fabric, the result is shown in Table 1. It was the white swimming suit which has the good feeling of wear and a good appearance like the example 1.

[0027] The \*\*\*\* type nylon multifilament of 50 deniers and 17 filaments which contains 12% of the weight (pair polymer ratio) of titanium oxide in a core part as an example 4 \*\*\*\* type bicomponent fiber was used, and also it composes like an example 1, dyes, and is 200g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 130%, 92% of \*\*s, and Lb. The value was 4%. Sewing of the white swimming suit was carried out like the example 1 using the obtained knitting fabric. Since evaluation of the feeling of wear of the obtained swimming suit and coloring nature was performed, the result is shown in Table 1. It was the white swimming suit excellent in the feeling of wear, and coloring nature.

[0028] As an example 5 \*\*\*\* type bicomponent fiber, the \*\*\*\* type nylon multifilament of 50 deniers and 17 filaments which contains titanium oxide in a core part 25% of the weight (pair polymer ratio) was used, and also it composes like an example 1, dyes, and is 202g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes, and is 129% and 90% of \*\*s, and the rate of extension of knitting fabric is Lb. The value improved with 3.1%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in

Table 1. Although coloring nature fell a little, the feeling of wear was a good white swimming suit.

[0029] As an example 6 \*\*\*\* type bicomponent fiber, the nylon multifilament of 50 deniers and 17 filaments which contains titanium oxide in a core part 29% of the weight (pair polymer ratio) was used, and also it composes like an example 1, dyes, and is 199g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes, and is 129% and 91% of \*\*, and the rate of extension of knitting fabric is Lb. The value improved with 2.7%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in Table 1.

Although coloring nature fell a little, the feeling of wear was a good white swimming suit.

[0030] The satin organization which arranged nylon yarn on the front reed which are the same yarn usage as what was used in the example 7 example 1, and a \*\* machine, however shows the blended ratio of each line of thread to drawing 2 as 85 % of the weight of nylon yarn and 15 % of the weight of polyurethane elastic yarn, and arranged polyurethane yarn on the back reed was composed. 290g/m<sup>2</sup> dyed white like the example 1 after an organization The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 261%, 128% of \*\*, and Lb. The value was 2.5%. Sewing of the white swimming suit was carried out using the obtained knitting fabric. Since evaluation of the feeling of wear of the obtained swimming suit and coloring nature was performed, the result is shown in Table 1. It was the white swimming suit excellent in the feeling of wear, and coloring nature.

[0031] The insertion organization which arranged nylon yarn on the front reed and middle reed which are the same yarn usage as what was used in the example 8 example 1, and a \*\* machine, however use the blended ratio of each line of thread as 88 % of the weight of nylon yarn and 12 % of the weight of polyurethane elastic yarn, and are shown in drawing 3 by the three sheet reed, and arranged polyurethane yarn on the back reed was composed. 342g/m<sup>2</sup> dyed white like the example 1 after an organization The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 96%, 85% of \*\*, and Lb. The value was 1.8%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in Table 1. Moreover, after sticking the knitting fabric of a swimming suit on \*\*\*\* and being under water at drawing 4, it puts on black grid shank pasteboard at a white ground, and the visual-sense evaluation photograph a photograph of was taken is shown. It excelled especially in \*\*\*\*\* and the coloring nature of knitting fabric was also a good white swimming suit.

[0032] The \*\*\*\* type nylon multifilament of 50 deniers and 17 filaments which contains example 9 titanium oxide in a core part 3% of the weight (pair polymer ratio) was used, and also it composes like an example 1, dyes, and is 205g/m<sup>2</sup>. The white knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 128%, 91% of \*\*, and Lb. The value was 7.1%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in Table 1. \*\*\*\*\* and the coloring nature of the manufactured white swimming suit were good.

[0033] The same \*\*\*\*\* was corrected with the same yarn usage as what was used in the example 10 example 1, and the \*\* machine, and it composed by making an organization density sweet rather than the example 1. It dyes white like an example 1 after an organization, and is 142g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 136%, 94% of \*\*, and Lb. The value was 5.4%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in Table 2. The manufactured swimming suit was a white swimming suit which has the coloring nature which was easy to move and was excellent as compared with an example 1 although \*\*\*\*\* is a little low.

[0034] The blended ratio and \*\*\*\*\* of each line of thread composed by making an organization density dense rather than the example 8 as well as an example 8 using the same yarn usage as what was used in the example 11 example 1, and the \*\* machine. It dyes white like an example 1 after an organization, and is 381g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 68%, 64% of \*\*, and Lb. The value was 1.4%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in Table 2. Although the manufactured swimming suit was sensed a little heavy as compared with the example 1, it was a white swimming suit which has high \*\*\*\*\*.

[0035] The nylon multifilament of 50 deniers and 17 filaments which does not contain an example of comparison 1 white pigment was used, and also it composes of the same yarn usage as an example 1, it dyes, and is 200g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes, and is 130% and 91% of \*\*, and the rate of extension of knitting fabric is Lb. The value fell with 14.1%. Sewing of the white swimming suit is carried out using the obtained knitting fabric, and since evaluation of the feeling of wear and coloring nature was performed, the result is shown in Table 2. Moreover, the visual-sense evaluation photograph of the swimming suit a photograph of was taken like the example 8 to drawing 5 is shown. The obtained swimming suit was a white swimming suit lacking in \*\*\*\*\*.

[0036] Like example of comparison 2 example 1, organization and dyeing are performed without using polyurethane elastic yarn, and it is 180g/m<sup>2</sup>. The white knitting fabric of eyes was obtained. It passes, and is 35% and 40% of \*\*, and the rate of extension of knitting fabric is Lb. The value fell with 4.7%. Sewing of the white swimming suit is carried out using the obtained knitting fabric, and since evaluation of the feeling of wear and coloring nature was performed, the result is shown in Table 2. Although \*\*\*\*\* had the obtained swimming suit, it was a white swimming suit which is hard to move since the rate of extension is low.

[0037] What was used in the example of comparison 3 example 1, the same nylon filament, and what was used in the example 1 of a comparison and the same usual nylon multifilament were set to the front reed of the same \*\* machine as what was used in the example 1 by turns every one each, the same polyurethane elastic yarn as what was used in the example 1 was set to the back

reed, and the half organization which shows drawing 1 was composed. The blended ratios of each line of thread were 40 % of the weight of titanium oxide inclusion nylon yarn, 40 % of the weight of usual nylon yarn, and 20 % of the weight of polyurethane elastic yarn. It dyes white like an example 1 and is 198g/m<sup>2</sup>. The knitting fabric of eyes was obtained. It passes and the rate of extension of knitting fabric is 132%, 92% of \*\*, and Lb. The value was 7.4%. Using the obtained knitting fabric, sewing of the white swimming suit is carried out, and the result which performed evaluation of the feeling of wear and coloring nature like the example 1 is shown in Table 2. The manufactured swimming suit was a thing inferior to \*\*\*\*\*.

[0038]

[Table 1]

実施例	糸使い	酸化チタン含有量 %	原糸混率 %	編組織	色	編地目付 g/m <sup>2</sup>	伸長率 %		L <sub>b</sub> 値 %	防透け性 (着用評価)	動き易さ (着用評価)	発色性 (視覚評価)
							経	緯				
1	F) N50-17 B) PU 40	5.0 0	80 20	10/23 12/10	白	201	131	91	4.6	○	○	○
2	F) N50-17 B) PU 40	5.0 0	80 20	10/23 12/10	白	156	133	96	5.0	○	○	○
3	F) T50-17 B) PU 40	5.0 0	80 20	10/23 12/10	白	203	125	88	4.5	○	○	○
4	F) N50-17 B) PU 40	12.0 0	80 20	10/23 12/10	白	200	130	92	4.0	○	○	○
5	F) N50-17 B) PU 40	25.0 0	80 20	10/23 12/10	白	202	129	90	3.1	○	○	△
6	F) N50-17 B) PU 40	29.0 0	80 20	10/23 12/10	白	199	129	91	2.7	○	○	△
7	F) N50-17 B) PU 40	5.0 0	85 15	34/10 10/12	白	290	261	128	2.5	◎	○	○
8	F) N50-17 M) N50-17 B) PU 40	5.0 5.0 0	88 12	23/10 44/00 10/12	白	342	96	85	1.8	◎	○	○
9	F) N50-17 B) PU 40	3.0 0	80 20	10/23 12/10	白	205	128	91	7.1	×	○	○
10	F) N50-17 B) PU 40	5.0 0	80 20	10/23 12/10	白	142	136	94	5.4	×	○	○
11	F) N50-17 M) N50-17 B) PU 40	5.0 5.0 0	88 12	23/10 44/00 10/12	白	381	68	64	1.4	◎	×	○

F ; フロント糸 B ; バック糸 M ; ミドル糸 N ; ナイロン糸 T ; ポリエステル糸  
PU ; ポリウレタン弾性糸

[0039]

[Table 2]

比較例	糸使い	酸化チタン含有量 %	原糸混率 %	編組織	色	編地目付 g/m <sup>2</sup>	伸長率 %		L <sub>b</sub> 値 %	防透け性 (着用評価)	動き易さ (着用評価)	発色性 (視覚評価)
							経	緯				
1	F) N50-17 B) PU 40	0 0	80 20	10/23 12/10	白	200	130	91	14.1	×	○	○
2	F) N50-17 B) N50-17	5.0 5.0	100	10/23 12/10	白	180	35	40	4.7	○	×	○
3	F) N50-17 N50-17 B) PU 40	5.0 0 0	40 40 20	10/23 10/23 12/10	白	198	132	92	7.4	×	○	○

F ; フロント糸 B ; バック糸 M ; ミドル糸 N ; ナイロン糸 T ; ポリエステル糸  
PU ; ポリウレタン弾性糸

[0040]

[Effect of the invention] By elaborating a device on the \*\*\*\* type bicomponent fiber and knitting fabric structure which constitute a swimming suit, the manufacture technique of the light color swimming suit of this invention can be dyed the amorous glance of thin inclinations, such as white, flesh color, yellow, pink, and cream, and can offer the light color swimming suit which has the wear nature of \*\*\*\*\* which was excellent also as a single cut sewing specification, the ease of moving, etc.

[Translation done.]